Invacare® **Alegio**™

User's Manual (GB)

Invacare® EC-Høng A/S
Ident. no.: 1427727
Version 02 02.2004

CE

Product Certificate

Congratulations with your new bed Invacare® Alegio™ from Invacare® EC-Høng A/S.

Your new bed Invacare® Alegio™ is CE-marked in accordance with directive 93/42/EØF of 27th February 2002 concerning medical devices.

Furthermore, Invacare® Alegio™ is a class I product also in accordance with directive 93/42/EØF of 27th February 2002 concerning medical devices.

Invacare® Alegio™ has been developed and constructed with consideration for the user and others handling or assisting with the bed. Invacare® Alegio™ has been developed in accordance with the European Standard EN 1970.

Throughout the entire production process Invacare® Alegio™ has been supervised and quality controlled and the finished bed has been inspected by our finished goods control. Design plate and QA-mark are put on the bed confirming that the finished goods control has approved the bed.

Please read the entire user's manual before using the bed.

Invacare® EC-Høng A/S is certified according to ISO 9001 and DS/ISO13485.

Kind regards

René Engskov
Managing Director

Carsten Borup
Quality Manager

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User's Part

Congratulations with your choice of the Invacare® Alegio™ nursing bed.

- The Invacare® Alegio™ is designed for patients over the age of 12 years — especially for home care.
- The Invacare® Alegio™ combines excellent stability and ergonomic design with easy disassembly and operation.

In order to optimise the patient's comfort Invacare® EC-Høng recommends using a 17-cm mattress.

1. In general

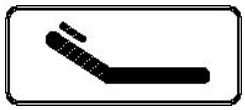
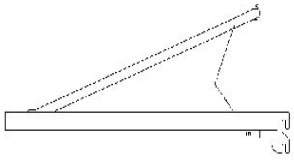
Please read the entire User's Part carefully before using the bed.

All indications of right and left are based on a patient lying on the back in the bed.

Invacare® EC-Høng accepts no liability for any use, change or assembly of the product other than as stated in this User's Manual.

The bed must be blocked during nursing a patient in the bed and when it is adjusted.

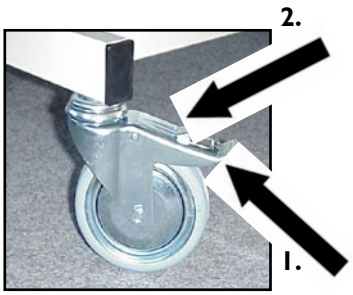
2. Operating the Invacare® Alegio™

	Electric operation	Manual operation
Adjustment of backrest Use the button with the symbol shown on the right.		
Adjustment of leg section UP: Lift the leg section to the desired height. DOWN: Lift the leg section right up and then lower the leg section.		
Height adjustment of mattress section Use the button with the symbol shown on the right.		

Please note that there is a risk of entrapment in the base frame's shear arm lifter.

Always leave the bed in the lowest position. Otherwise there is a risk of entrapment due to accidental lowering of the mattress support. A person under the bed can be seriously injured during height adjustments.

Operating the braking castors



When the bed is correctly positioned, at least one castor at the head end and one castor at the foot end must be blocked.

1. **Braking:** Step on the brake.
2. **Releasing the brake:** Step on the release handle.

Technical Part

Invacare® EC-Høng is certified according to DS/EN ISO 9001/EN 13485 which ensures our customers are always supplied with products of uniform quality.

Throughout the entire production process our materials/products are quality controlled by the operators. Furthermore there is a final test when the product is fully assembled.

The operator carrying out the final test, which comprises checking of all moveable parts, motors and castors, puts his personal QA number on the product thereby confirming its quality.

QA XXX

If the product does not correspond to the quality demands of Invacare® EC-Høng, it will be discarded.

Please contact your Invacare® supplier if, contrary to our expectations, a problem should arise in connection with the delivered product.

3. Product information

Please read the entire technical part carefully before using or servicing the bed.

All indications of right and left are based on a patient lying on the back in the bed.

- The Invacare® Alegio™ is CE-marked in accordance with directive 93/42/EØF of 27th February 2002 concerning Medical Apparatus.
- The motors and the control box of the Invacare® Alegio™ are approved according to EN 60601:1996-03.
- The Invacare® Alegio™ has undergone a risk analysis according to EN 1441.

The control box and the motors are protected according to IP 54. The hand control according to IP66.
A lock cam **must** be used on the control box. Otherwise, Invacare® EC-Høng cannot guarantee the protection.

Max. load: 170 kg. – max. patient weight: 135 kg. Max. load is stated on the design plate.
Note! The max. load of the bed must not be exceeded.

4. Safety guidelines

Disconnect the plug from the mains before moving the bed. The cable must be kept clear off the floor and the castors during transport.

Make sure that the mains cable cannot be jammed or in any other way damaged, when the bed is used.

The bed must be blocked during nursing a patient in the bed and when it is adjusted.

Adjust all mattress support sections to a horizontal position before transporting an assembled bed. Hold the top of the bed end with both hands while the bed is pushed/pulled.

Only personnel who have been trained or instructed by Invacare® may perform the service work described in this manual in the chapters 12 and 13.
If the functions of the bed change, check the bed according to chapter 12.

The Invacare® Alegio™ must be stored in a room with a humidity of 10 - 80% and with a temperature of 0 - 50°C.

5. Dismounting/mounting the Invacare® Alegio™

Dismounting the Invacare® Alegio™

1. Brake the bed and bring it to its lowest position and then about 5 cm up (1).
2. Remove the accessories: Siderails, bed ends and lifting pole.
3. Dismount the thumbscrews at both sides (2).
4. Dismount the cable from the lifting motor (3).
5. Dismount the top frame at the head end and place it in a vertical position (4,5).
6. Lift the leg section and dismount the locking pin (6).
7. Dismount the top frame at the foot end and place it in a vertical position (7).
8. Manual removal of the base (8).
9. Dismount the shear arm (9, 10, 11, 12, 13).

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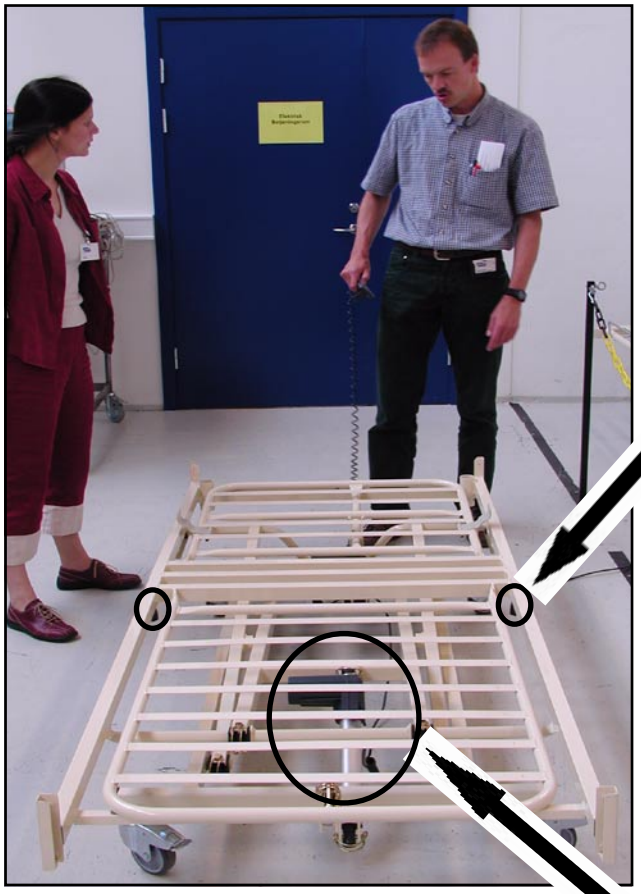

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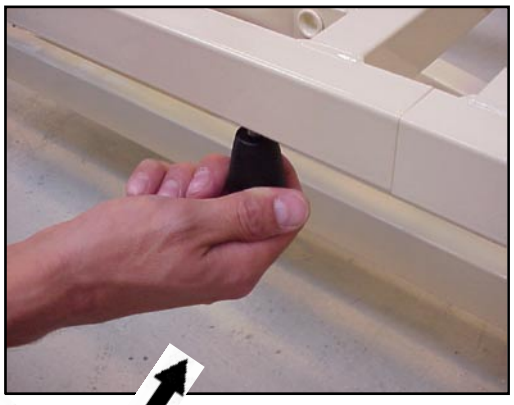
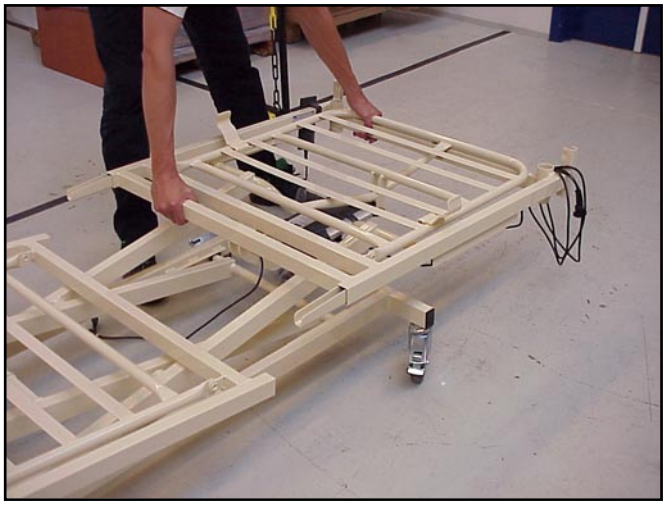


Thumb screw

Cable

3.



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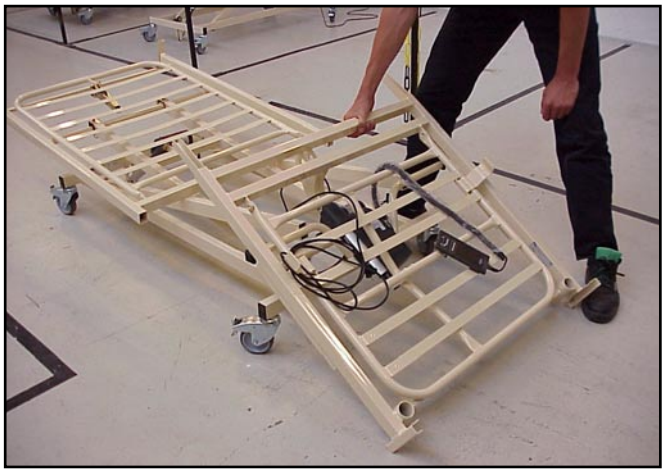

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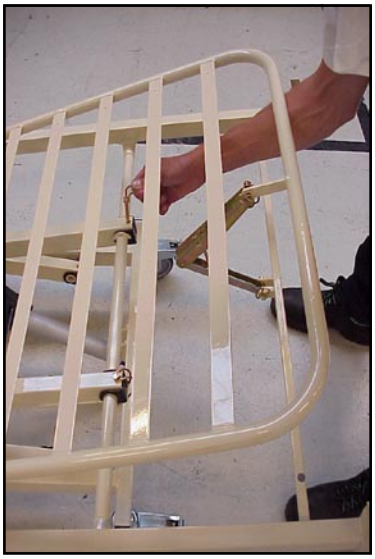

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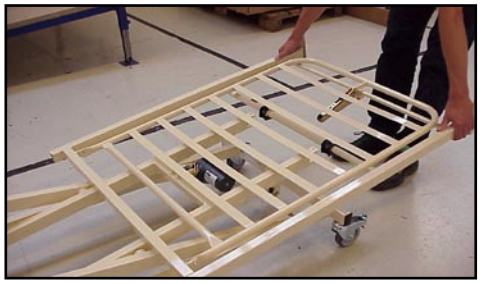

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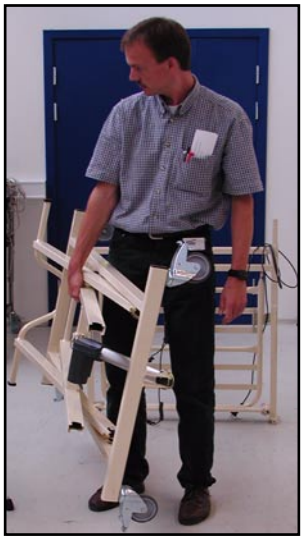

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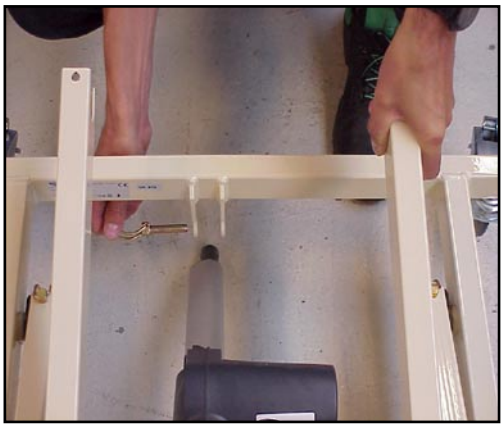

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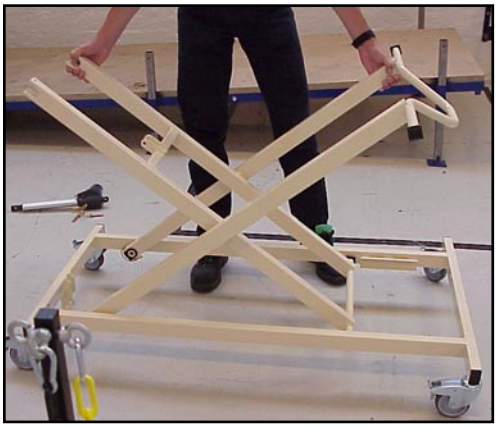

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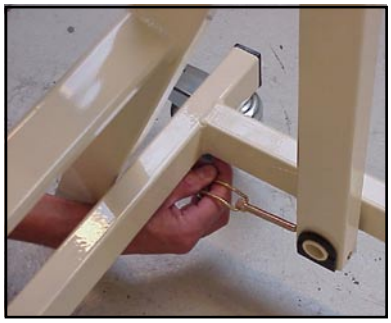

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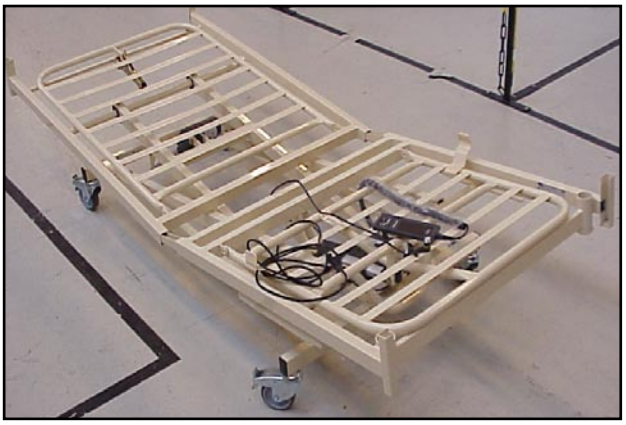


Mounting the Invacare® Alegio™

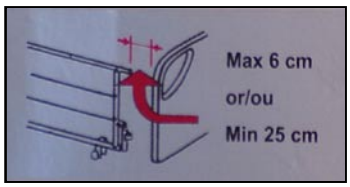
1. Mount the shear arm (13, 12, 11, 10, 9).
2. Mount the leg section and the locking pins (7,6).
3. Mount the head section (5, 4).
4. Push the head section into the leg section (14).
5. Mount the cable for the lifting motor (3).
6. Mount the accessories: Siderails, bed ends and lifting pole.

6. Mounting/dismounting the accessories

Mounting the Vibeke wooden bed end
Lower the bed ends into the U-profiles.

Mounting the Eclipse2 metal side rail
The side rail may be mounted with the release system at the head of the bed.

The fork links on the side rail must be mounted according to the instruction on the side rail.



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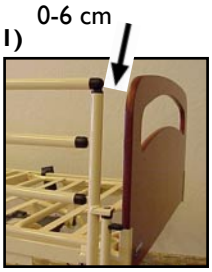
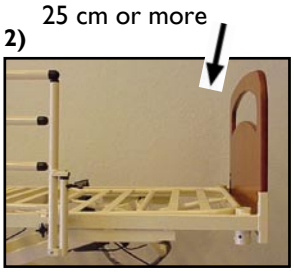




Tighten the side rail with 2 thumbscrews.

There is a risk of entrapment on assembly and operation of the side rails.

Mounting the lifting pole
Lower the lifting pole into the lifting pole tube. The lifting pole MUST be fastened with a thumbscrew.

Position the lifting pole in such a way that the handle extends inwards across the bed.
If the lifting pole is used while the handle has been turned away from the bed the bed can tip when the handle is used.

7. Emergency lowering of the backrest

A minimum of 2 persons is required to release a mattress support.

Remove the patient before emergency release of the mattress support.

Remove the plug from the mains before emergency release of the mattress support.

In an emergency the mattress sections are released by pulling out the cotter pin from the motor.

Both persons hold the mattress section in locked position. One of them pulls out the cotter pin. Both slowly lower the mattress section until it is complete down.

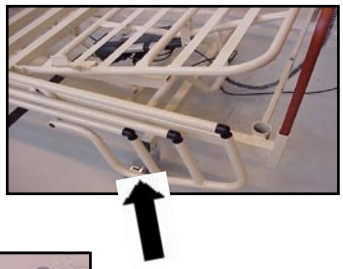
8. Operating the accessories

Operating the Eclipse2 wooden side rail
UP: Pull the top tube of the side rail towards the end where the release system is.
DOWN: Press the release button down while pulling the top tube away from the release system.

Check that the side rails have been locked correctly!

There is a risk of entrapment while operating the side rails.

If the side rail is mounted with the lock in the foot end it might hit the braking pedal at the head end.



Adjusting the height of the lifting pole handle
Loosen the cord as shown in ill. A. The lifting handle can now be adjusted to the desired height. Press the cord together as shown in ill. B and check that the cord is locked in the cord lock by pulling the handle.

Position the lifting pole in such a way that the handle extends inwards across the bed. If the handle has been turned away from the bed while the lifting pole is being used, the bed can tip.

A B

Max. load of the lifting pole: 80 kg.

9. Order numbers for accessories

Article	Order no.
Siderail Eclipse2	50.55700.D0
Bed end Vibeke	1427649-0102
Lifting pole	50.57600.D0
Hand control support	1427692-1015
IV Drop	50.60030.D0
Support for IV Drop	50.60910.00

Please only use original spare parts.
Spare parts lists and extra user manuals for the Invacare® Alegio™ can be ordered from Invacare® .

10. Cleaning

The Invacare® Alegio™ does not tolerate cleaning in automatic washing plants or using water-jet based cleaning equipment.
The bed is washed down using a sponge, cloth or brush. Use ordinary household detergents.
Dry the bed after cleaning.
Never use acids, alkalines or solvents such as acetone or cellulose thinner.
The hand control, motors and the control box can be wiped with a moist cloth (the water temperature must be below 30° C).

When cleaning: Bring the backrest to its top position. Bring the bed to its top position. Disconnect the power supply by pulling the plug from the wall before cleaning the bed. The risk of entrapment of fingers is minimised, as accidental elevation of parts of the bed not is possible.

11. Maintenance and check-ups

Only personnel who have received the necessary instruction or training may perform service and maintenance on the Invacare® Alegio™ .

After 3 months of use the following must be checked:
- Tightening of the thumbscrews at the inserts in the middle of the bed
- Fastening of the siderail, locking system and moving system.

With normal operation the first service inspection is required after 2 years and thereafter every year.

Please note:
The mattress support must be supported during service inspections to prevent accidental lowering.

For beds with electrical equipment a safety test comprising control of the motors' performance and mechanical state is recommended once a year.

Motors, control box and hand control
These parts are serviced by exchanging the faulty part.

Motors, control box and hand control must be regularly cleaned from dust and dirt and must be inspected for mechanical damage or breakage.

Inspect anchor points, cables, piston rod, casing and plugs and check the correct functioning of the motor.

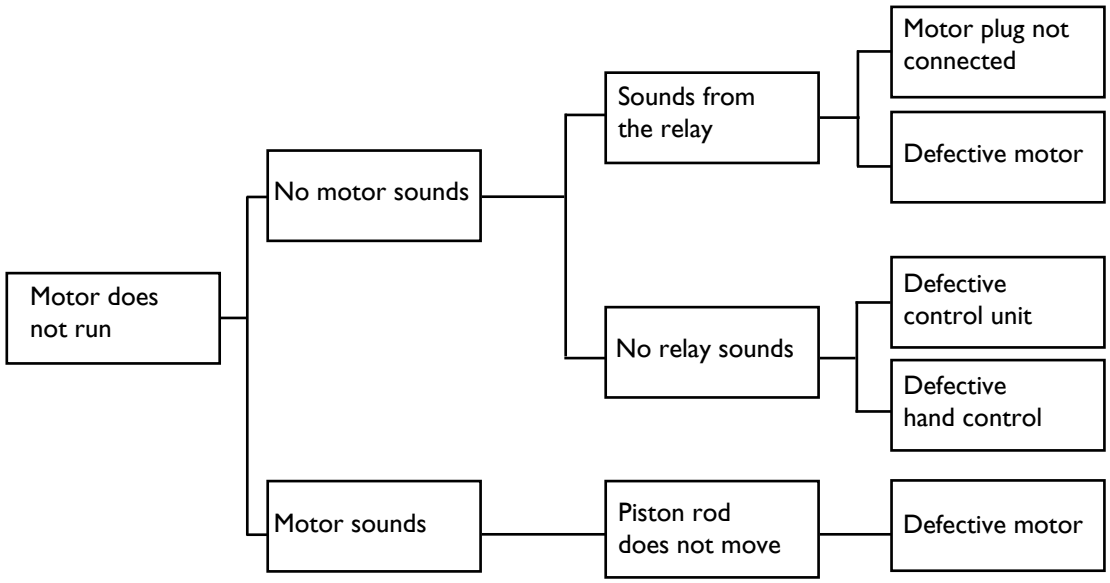
12. Maintenance chart

Only personnel who have received the necessary instruction or training may perform service and maintenance on the Invacare® Alegio™ . Bed / ID no: _____				
What to check for: Date:				
Check the siderails' mounting and locking/movement				
Check mounting and braking of wheels				
Check height adjustment motor, suspension, and performance				
Check backrest motor, suspension and performance				
Check that cables and plugs are undamaged				
Check rastofix fitting and its function				
Check weldings				
Damaged coating repaired				
Lubrication performed: 1) Points of rotation in mattress support and base frame, with oil. 2) All of the motors' tension rods, with oil. Lubricate with medically clean oil, e.g. KEN-WO 50, order no.: 813239.				

A service contract can be made in countries where Invacare® has its own sales company.
Furthermore, Invacare® offers courses in service and maintenance of the Invacare® Alegio™ .

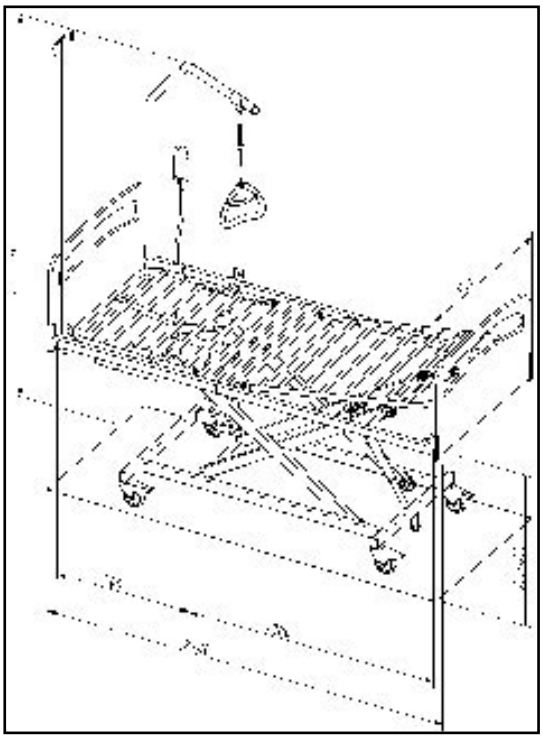
13. Trouble-shooting the electrical system

Only personnel who have received the necessary instruction or training may perform service and maintenance on the Invacare® Alegio™ .



14. Technical specifications

All measurements are in given in cm. All angles are stated in degrees. All measurements and angles are stated without tolerances.
Invacare® reserves the right to change the stated measurements and angles.

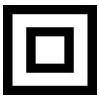


15. Electrical data

Voltage supply: 230 V = ±10%, 50 Hz.
Max. current input: 1 A
Voltage output: 24V
Intermittent (periodic motor operation): 10% max. 6 minutes/hour
Protection class: IP54, IP 66
Insulation class: II, type B
Sound level < 45 dB

The bed is not provided with a mains switch, so the mains plug is the only separation from the mains.

The patient is not separated from the ground and the chassis.

Double insulated 

Max. load: 170 kg – see sign on design plate.

Max. load (SWL) (Patient + mattress + side rail + lifting pole + other equipment)

16. Weight

Complete bed (mattress support, base, bed ends) excl. accessories	60,0 kg
Mattress support	31,5 kg
Top frame – head section	18,5 kg
Top frame – leg section	13,0 kg
Base and shear arm	28,5 kg
Base	13,5 kg
Shear arm	15,0 kg
Bed ends Vibeke (pcs.)	6,0 kg
Side rails Eclipse2 (pcs.)	7,0 kg
Lifting pole	7,0 kg

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Information about using this list

Order of wearing parts/exchange kit:
In the table of contents on page 2 you can see where in the list you can find the wanted part/kit.
Wearing parts are sold in exchange kits with an order number for the entire kit.
The order number is as shown below marked with light grey background:

Order of spare parts:
In the table of contents on page 2 you can see where in the list you can find the wanted part. Spare parts are sold individuallly.
The order number is as shown below marked with dark grey background:

Mounting Parts Page 1/2

July 2002

Pcs.	Ident. no.:	Description
2	421837	Bearing bush
8	1423842	Rotate bush
4	319155	Guide shoe
2	1427655	Thumbscrew
2	1423980	Handle for mattress
2	804410	Ferrules 50x30x1
2	819404	Ferrules 50x30x3
2	819456	Pipe pin - ø8

Order of a complete unit:
In the table of contents on page 2 you can see where in the list you can find the wanted unit of the bed.
The order number is as shown below marked with grey background:

Lifting Pole – Model 5760 Page 1/2

Lifting pole – Model 5760, complete: 50.57600.D0
Exchange kit Ident. No.020028 July 2002

Pcs.	Description
1	Thumbscrew M6x16
1	Handle for lifting pole, incl. suspension and lock
1	Ferrule for lifting pole

Painted parts and wooden parts:
In the table of contents on page 2 you can see where in the list you can find the wanted part. Wooden parts are sold individuallly.

Vibeke Wooden Bed End Page 1/2

July 2002

Pcs.	Ident. no.:	Description
1	1427649-0102	Vibeke wooden bed end

Base Frame

Ident no.: 1427709

July 2002

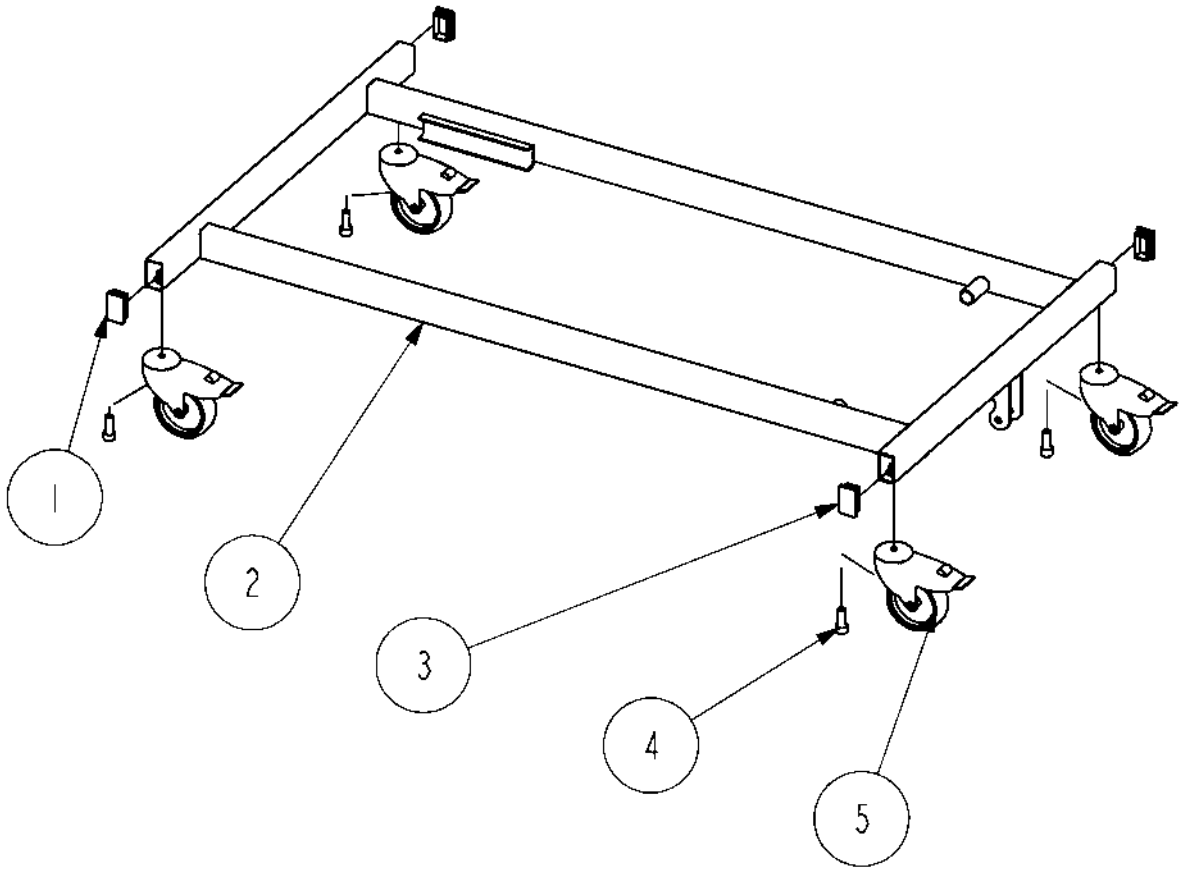
Pos.	Pcs.	Description
1	2	Ferrules 50x30x1
2	1	Base frame
3	2	Ferrules 50x30x3
4	4	Screw M12
5	4	Braking castor - ø100

Braking Castor

Ident. no.: 1427713

July 2002

Pos.	Pcs.	Description
4	2	Screw M12
5	4	Braking castor - ø100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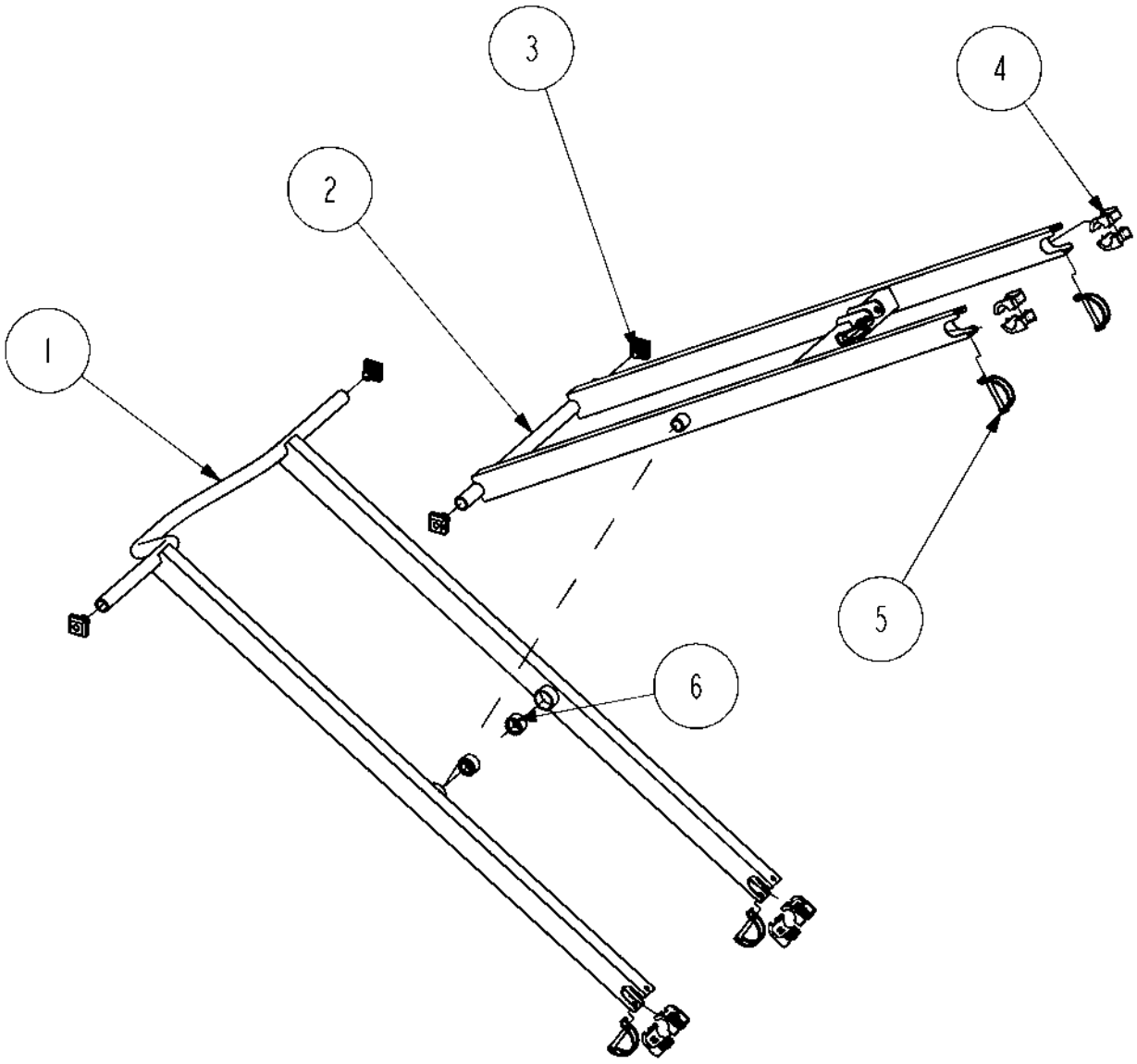
Shear Arm

Ident. no.: 1427712

July 2002

Pos.	Pcs.	Description
1	1	Outer shear arm
2	1	Inner shear arm
3	4	Guide shoe
4	8	Rotate bush
5	4	Pipe pin - ø8
6	2	Bearing bush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6

½ Mattress Support – Head End

Ident. no.: 1427710

July 2002

Pos.	Pcs.	Description
1	1	Head section with back rest mounted
2	1	Butt knob (grey)
3	2	Thumbscrew

½ Mattress Support – Leg End

Ident. no.: 1427711

July 2002

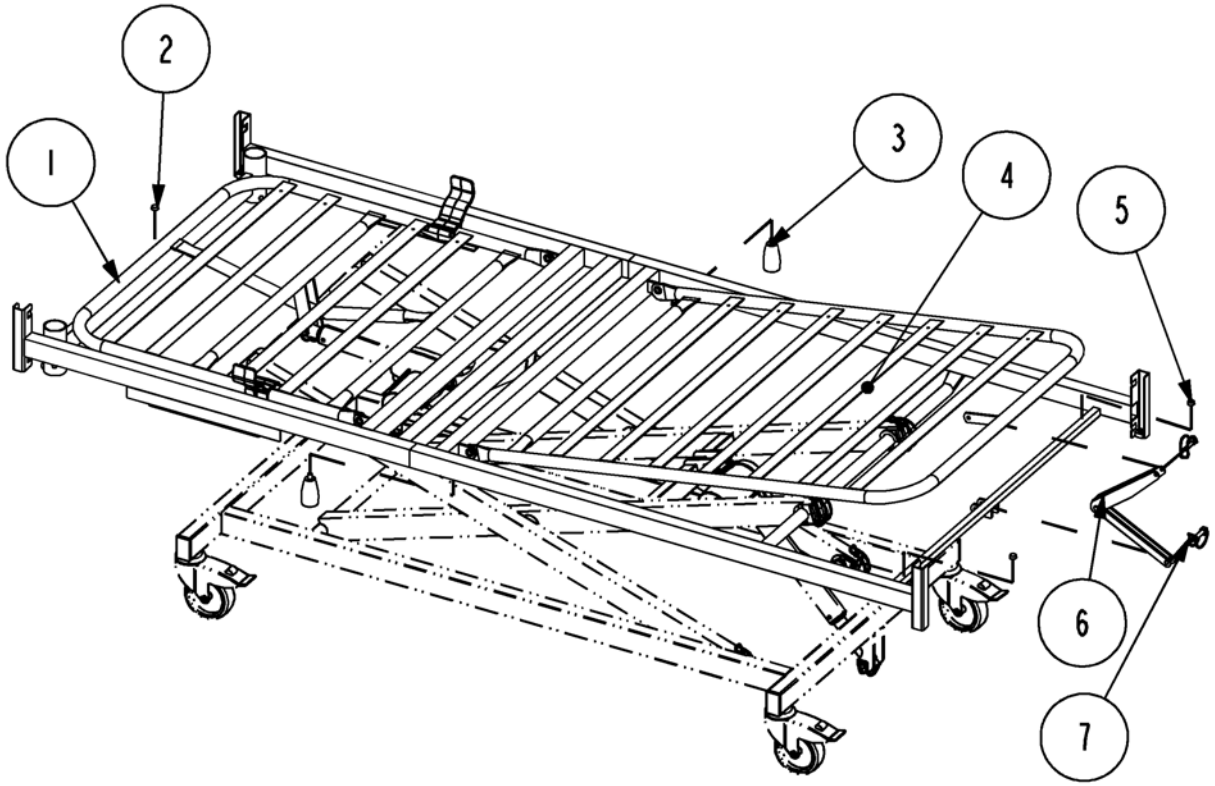
Pos.	Pcs.	Description
3	2	Thumbscrew
4	1	Leg section with feet rest mounted
5	2	Butt knob (grey)
6	1	Raise fitting
7	2	Pipe pin - ø8

Raising Unit

Ident. no.: 1427714

July 2002

Pos.	Pcs.	Description
6	1	Raise fitting
7	2	Pipe pin – ø6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Backrest Motor

Ident. no.: 1427717

July 2002

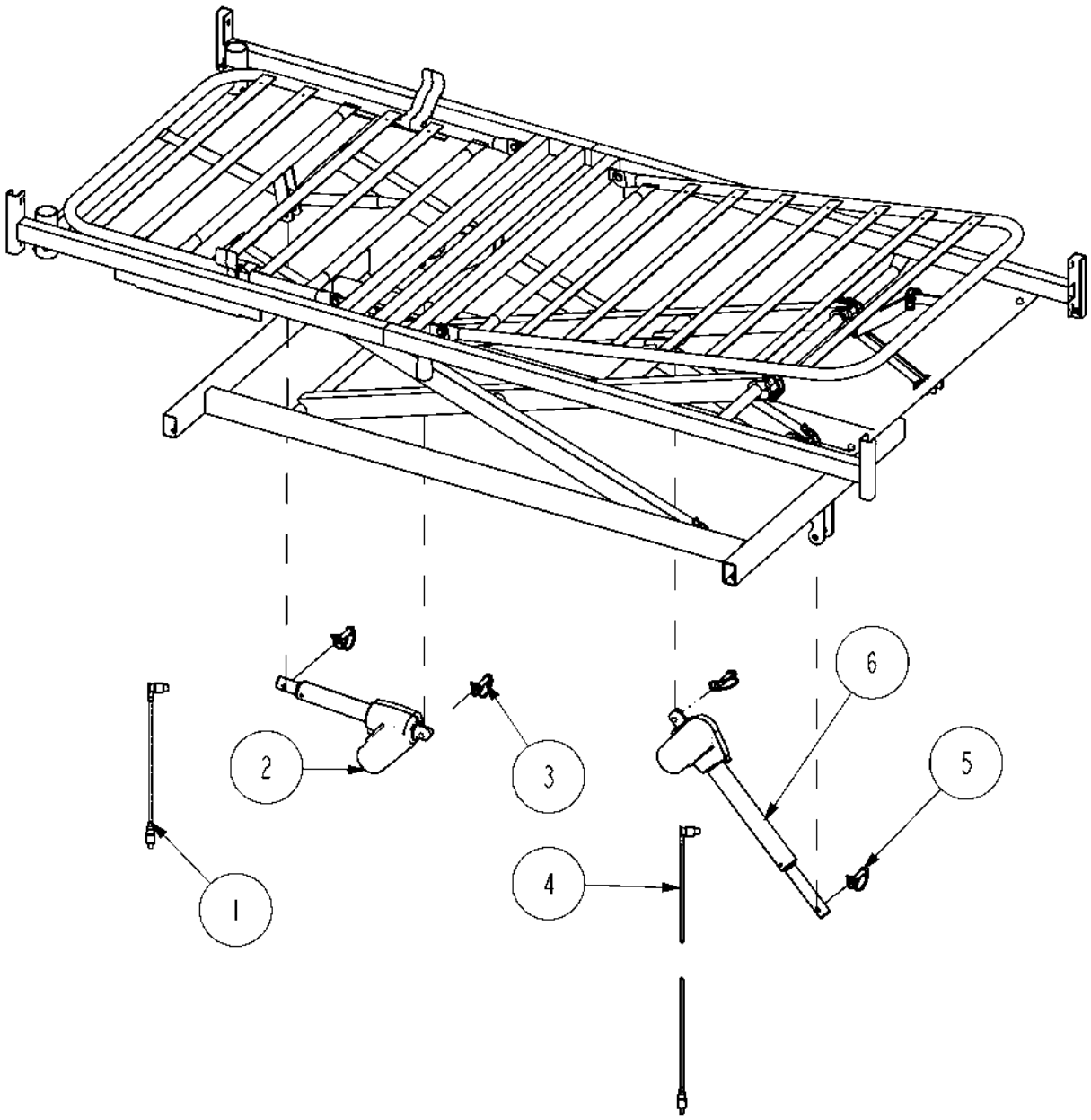
Pos.	Pcs.	Description
1	1	Cable of the backrest motor (length 0.27m)
2	1	Backrest motor
3	2	Pipe pin - ø10

HiLo Motor

Ident no.: 1427715

July 2002

Pos.	Pcs.	Description
4	1	Cable of the HiLo motor (length 1.25m)
5	2	Pipe pin - ø10
6	1	Motor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Control Unit

Ident. no.: 1427716

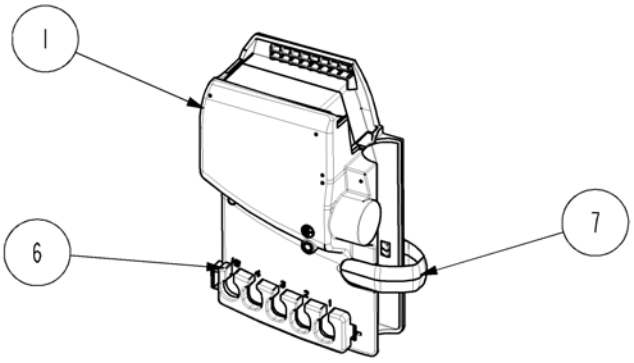
July 2002

Pos.	Pcs.	Description
1	1	Control unit
2	1	Main cable (length 3.2m)
5	1	Blind plug
6	1	Lock cam

Cables

July 2002

Pos.	Pcs.	Ident. no.:	Description
2	1	821283	Main cable (length 3.2m)
3	1	1423813	Cable of the HiLo motor (length 1.25m)
4	1	1423812	Cable of the backrest motor (length 0.27m)
5	1	1427602	Blind plug
6	1	1423968	Lock cam
7	1	1427705	Mounting clip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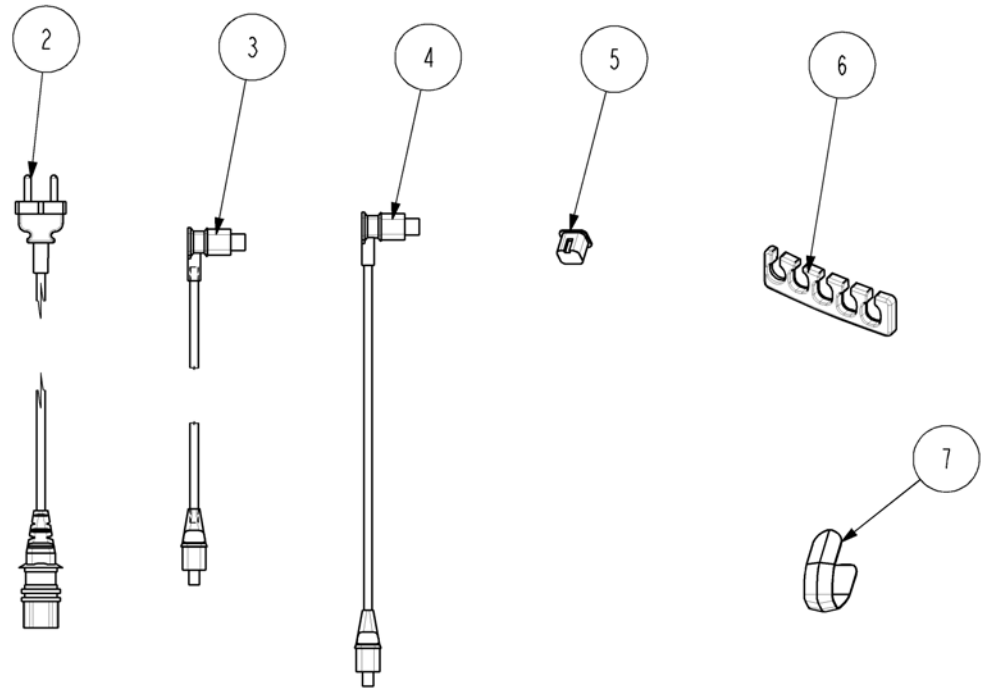
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Hand Control for Control Unit CB09

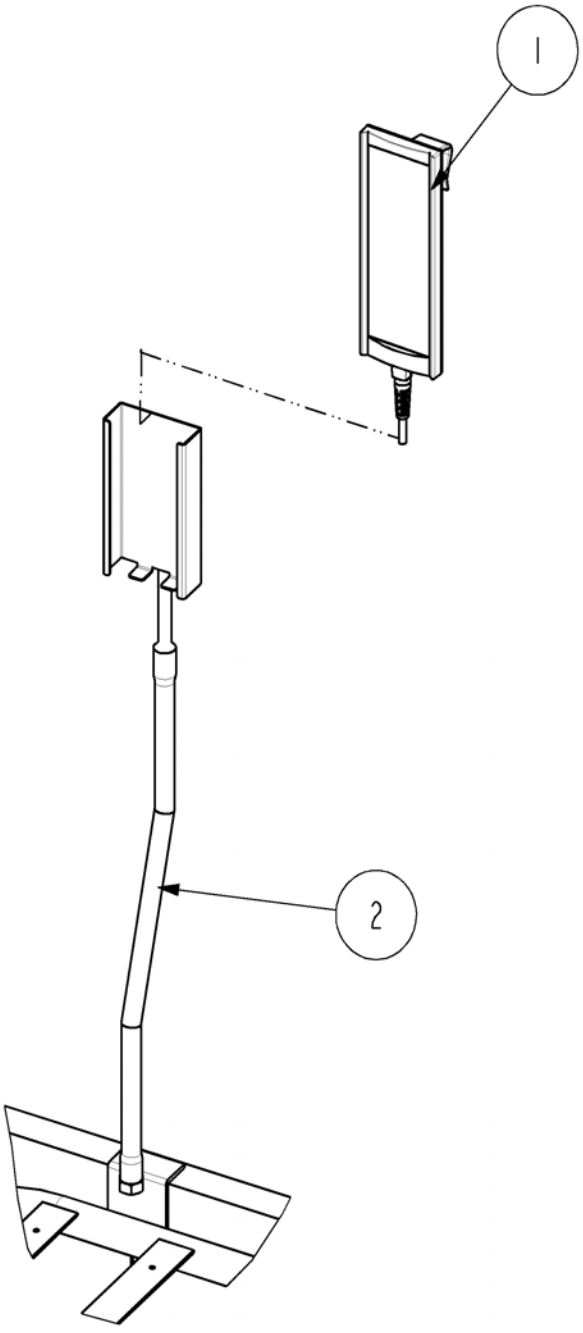
July 2002

Pos.	Pcs.	Ident. no.:	Description
1	1	1423814	Hand Control

Support for Hand Control

July 2002

Pos.	Pcs.	Ident. no.:	Description
2	1	1427692-1015	Support for Hand Control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Vibeke Wooden Bed End

July 2002

Pcs.	Ident. no.:	Description
1	1427649-0102	Vibeke wooden bed end

Eclipse2 Side rail

Eclipse2 Side rail, complete: 50.55700.D0
Insertion kit – Ident. no.: 1427718

July 2002

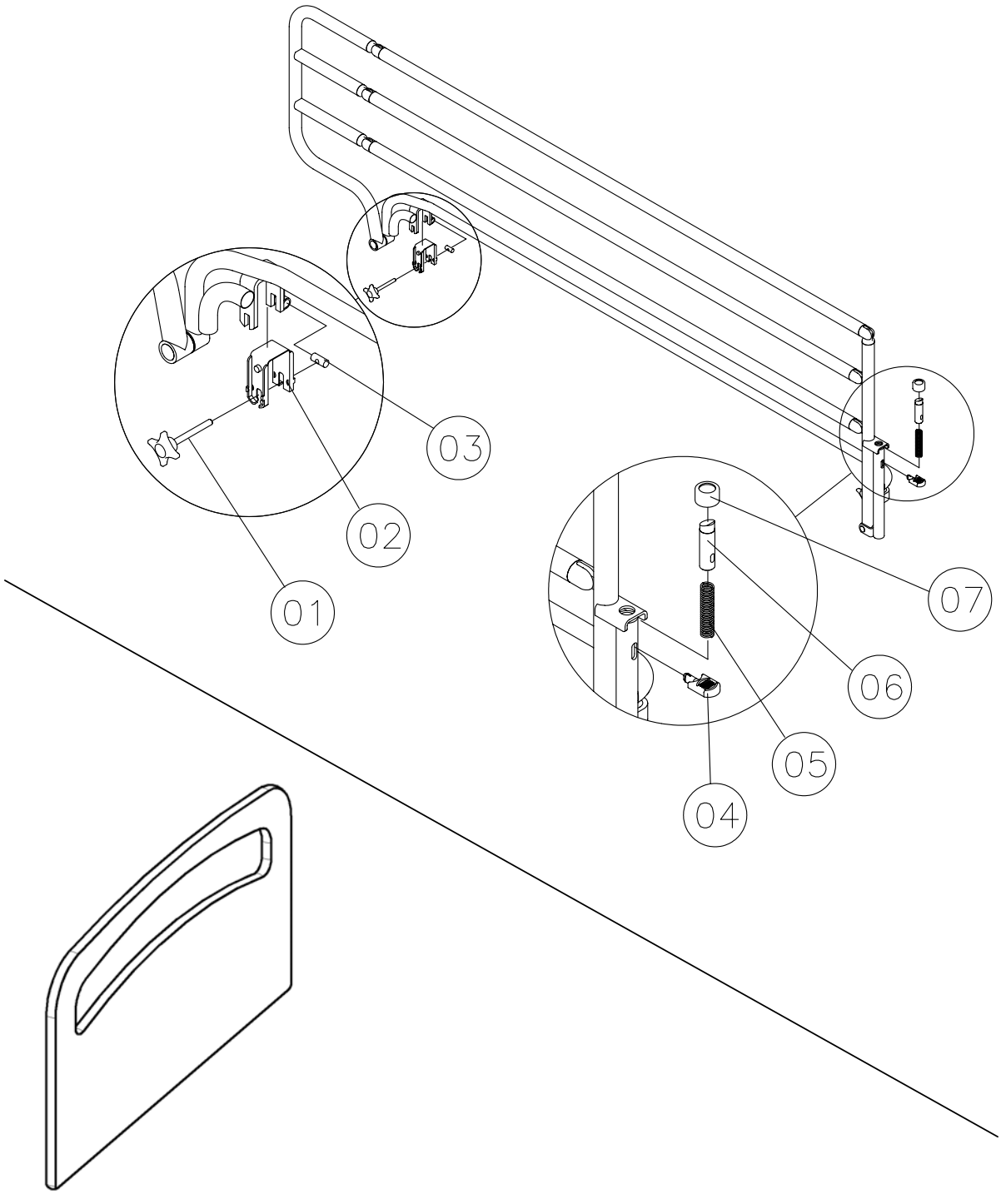
Pos.	Pcs.	Description
1	2	Thumbscrew
2	2	Plast insert
3	2	Cylinder nut

Eclipse2 Side rail

Eclipse2 Side rail, complete: 50.55700.D0
Locking kit – Ident. no.: 1427719

July 2002

Pos.	Pcs.	Description
4	1	Ratchet lock
5	1	Spring
6	1	Locking button
7	1	Guiding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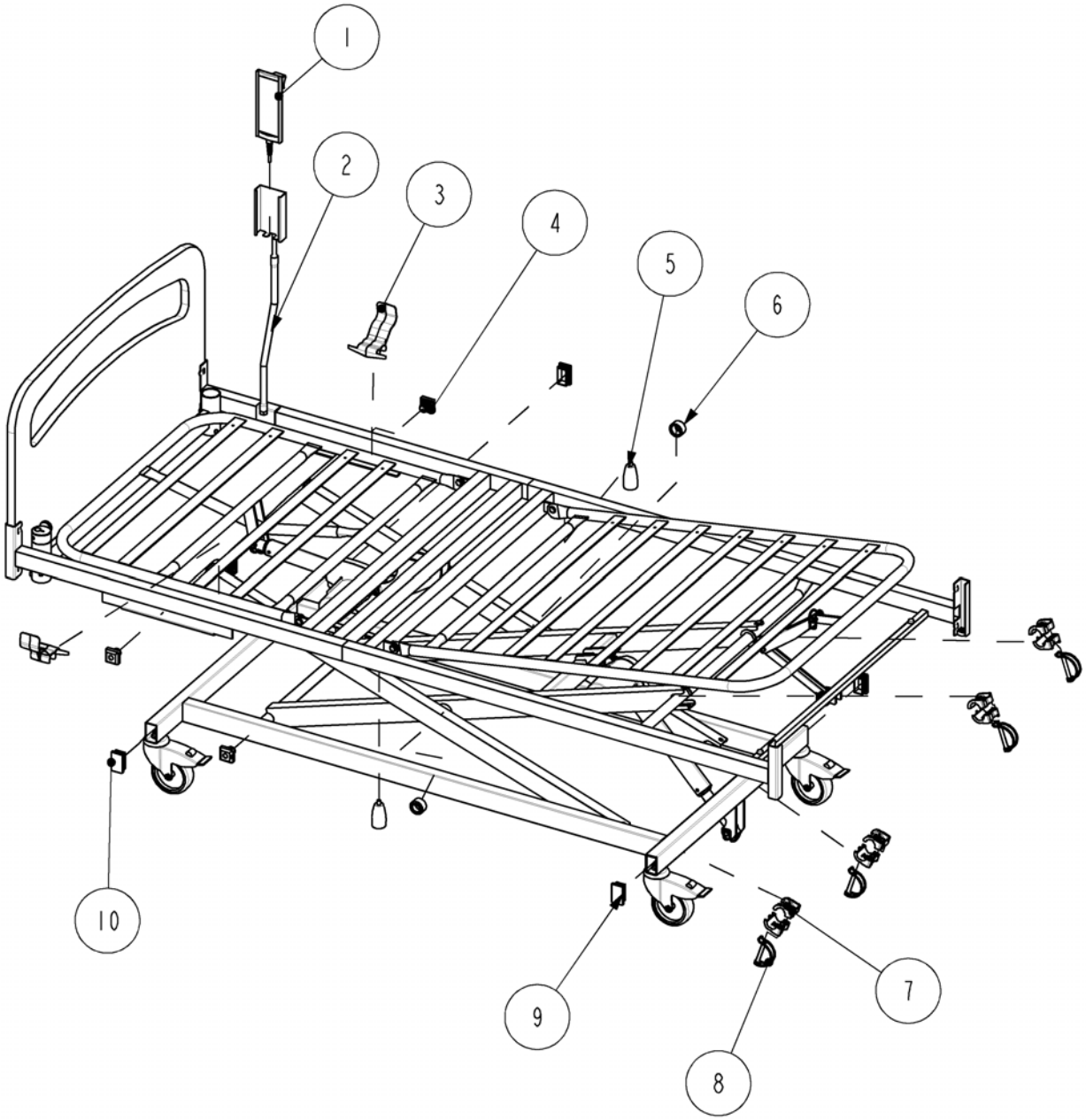
Mounting Parts

July 2002

Pos.	Pcs.	Ident. no.:	Description
1	1	1423814	Hand Control
2	1	1427692-1015	Support for Hand Control
3	2	1423980	Handle for mattress
4	4	319155	Guide shoe
5	2	1427655	Thumbscrew
6	2	421837	Bearing bush
7	8	1423842	Rotate bush
8	4	819456	Pipe pin - ø8
9	2	819404	Ferrules 50x30x3
10	2	804410	Ferrules 50x30x1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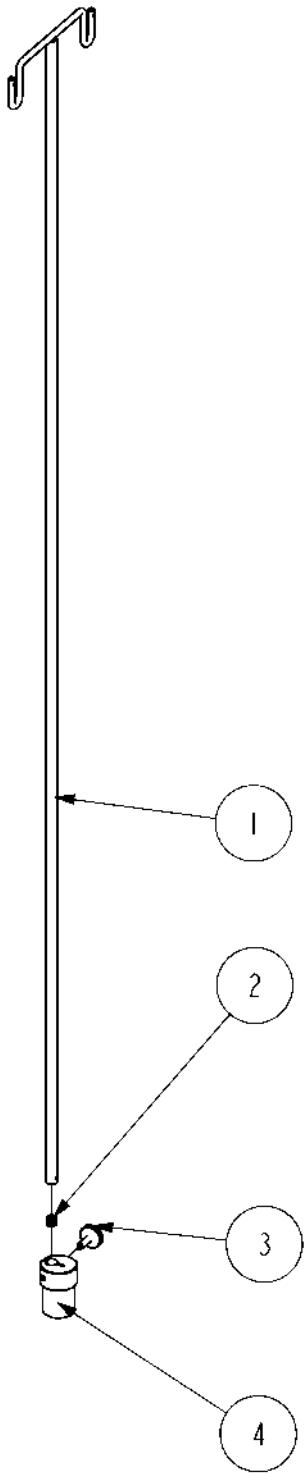
IV Drop
Ident. no.: 50.60030.D0
July 2002

Pos.	Pcs.	Description
1	1	IV drop bar
2	1	Ferrule

Support for IV Drop
Ident. no.: 50.60910.00
July 2002

Pos.	Pcs.	Description
3	1	Screw
4	1	Support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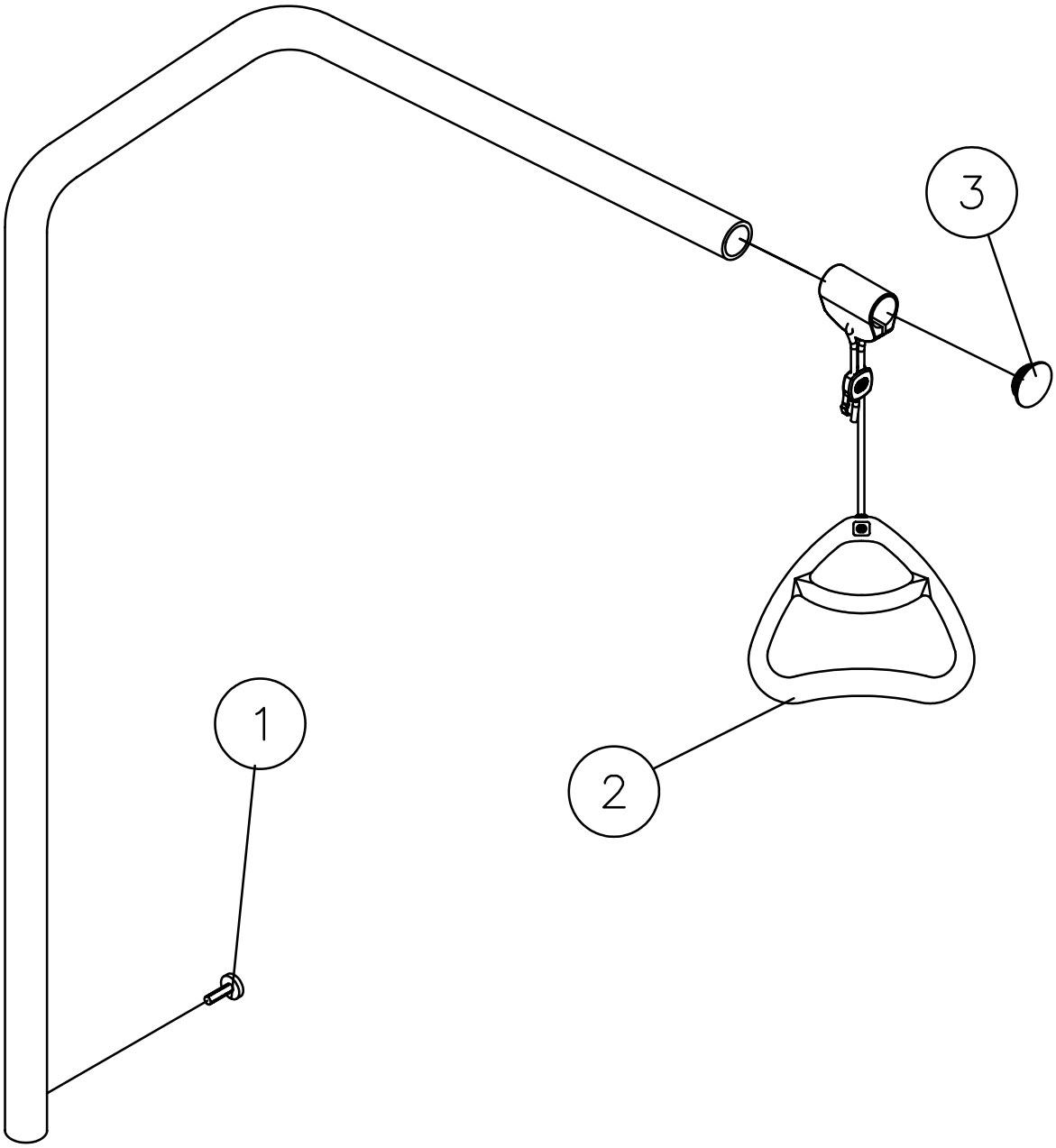
Lifting Pole – Model 5760

Lifting pole – Model 5760, complete – Ident. no.: 50.57600.D0

Exchange kit – Ident. no.: 020028 July 2002

Pos.	Pcs.	Description
1	1	Thumbscrew M6x16
2	1	Handle for lifting pole, incl. suspension and lock
3	1	Ferrule for lifting pole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